Technical Guides for Exterior Alterations

A Practical Series for the Preservation and Maintenance of Rockville's Historic Resources

3: Windows and Doors

Background

Original windows and doors are important features on historic buildings. Their spacing contributes to the visual rhythm of the façade, while providing insight into interior spaces and the uses of the building. Their design, craftsmanship and materials contribute to a property's historic value. Because there are so many design choices such as number, location, size, muntin profile and arrangement of panels on the doors, these architectural elements are key indicators of the historical style and date of construction.

Historic materials for doors and windows include wood and metal (most often, steel). Wood is easily worked for design effects, including the addition of decorative trim for door and window surrounds. Most of the historic doors and windows in Rockville were made from old growth wood, and have a natural resistance to weather and insect decay. Metal windows were originally made to imitate wood windows. The inherent strength of the material, however, permitted larger windows with thin muntins and frames.



Typical Rockville double hung windows

The replacement of doors and windows is often proposed because of condition or poor functioning. However, peeling paint, broken glass, stuck sashes and high air infiltration are no indication that windows are beyond their useful lives. These concerns can be addressed through repair and repainting and, replacement is not recommended.

Wood doors and windows that are repaired and properly maintained will have greatly extended service lives while contributing to the historic character of the building. When energy conservation is a concern, weatherization and/or the addition of storm windows and storm doors will reduce heating and cooling costs, while helping to preserve the original materials and the paint finish (see Rockville *Technical Guide* No. 13 - Storm Windows and Doors).



A typical c. 1920-30 front door

HDC Policy

The Historic District Commission follows *The Secretary of the Interior's Standards for Rehabilitation*, and the accompanying *Guidelines*, in recommending the repair and retention of original windows and doors whenever possible through the following practices:

- Retain and repair original windows and doors and their frame and trim.
- Retain the location of original window and door openings to the maximum extent possible.
- Retain the size of the original openings and configurations, with transoms, sidelights, double doors or other features.

If the HDC approves the replacement of one or more of the original windows or doors, the replacement shall be in kind, matching the original in design, size, and materials. Windows in new additions are evaluated as "new construction" and repair of original materials would not apply.

Considerations for Window Replacement

The rehabilitation of original wood window sashes is required, unless they are severely damaged. Damage must be investigated and documented to the HDC before replacement is considered. If energy efficiency is the primary concern, measures such as weatherstripping, caulking frames and the use of storm windows are recommended. HDC approval is required, and additional information about storm windows is available, in Rockville *Technical Guide #* 13.

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3: Windows and Doors (continued)

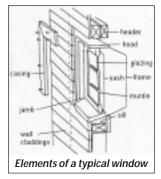
Considerations for Window Replacement

(continued)

If windows are beyond repair due to rot, dry rot or substantial insect damage and must be replaced, the replacement shall be manufactured to the exact size of the original window opening, duplicating the pane pattern exactly. The frame and trim shall be retained, or replicated, when damaged beyond repair.

For replacement windows, either true divided light (the single-pane of glass within a wood frame) or simulated true-divided light (where the wood frame is glued over a thermal glass "sandwich" and cannot be removed) glazing is recommended. The simulated true-divided light sash replicates the historic appearance with accurate shadow lines provided by the depth and molding profile of the sash muntins. Inserted or removable grills do not replicate these characteristics of the original windows and shall not be used.

Wood is the preferred material for replacement of wood windows. Materials other than wood may be considered, but will be evaluated against the standard of the original wood window, including muntin profiles and dimensions of the frame.



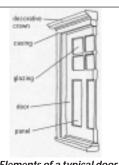
Historic shutters shall not be removed. Shutters are generally recommended only if originally used on the building, which is often documented with historic photographs. However, new shutters may be approved by the HDC if it can be demonstrated that they were typical of the building style. In that case, replacement shutters shall match historic shutters in size, design, material, and color, and method of installation and operation.

Considerations for Door Replacement

Original doors shall be retained unless they are damaged beyond reasonable repair. Damage must be

documented for approval by the HDC. The frame and trim shall be retained, or replicated, when damaged beyond repair.

If a door must be replaced due to rot, dry rot, insect or other damage, the new door shall replicate the original door (if known) in size, proportion, material, shape, glazing pattern, and number of panels, including the use of true-divided lights. If the design of the original door is unknown, staff will work with the applicant to help determine a compatible replacement door for HDC consideration.



Elements of a typical door

When a prominent historic door is too deteriorated, or the existing door is not historic, it may make sense to re-use a similar exterior door from a less prominent location such as side or rear entrance. The HDC reviews proposals for door replacement with compatibility in mind.

Wood or metal storm doors, reviewed by the HDC, may be used for additional comfort and security but the National Park Service notes that there may not be substantial savings over time due to the relative cost of the storm door itself (see NPS Preservation Brief No. 3).

Certificate of Approval

PLEASE NOTE - If repair or replacement materials match the existing materials *exactly*, no Certificate of Approval is required.

If changes are requested, the application for a Certificate of Approval must include the following:

- Justification for replacement, including photographs documenting the decaying condition of the door or window sash and/or frame.
- Specifications for the proposed replacement door or window, including material, dimensions, glazing pattern, trim and finish.
- Manufacturer's brochures or examples of requested replacements.

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3: Windows and Doors (continued)

Tax Credit Information

Tax credits may apply. To maintain eligibility, please have before and after photographs of the work. Obtain HDC approval prior to undertaking the work if a COA is required, and make sure you follow all zoning requirements. Work done without a required HDC Certificate of Approval is not eligible for the tax credits. Forms are available on the City Web site or at the CPDS information desk.

Contact Us

For additional information and questions, please contact: Historic District Commission Department of Community Planning and Development Services

Rockville City Hall 111 Maryland Avenue Rockville, MD 20850 240-314-8230 voice 240-314-8210 fax history@rockvillemd.gov

Additional information

Adopted Architectural Design Guidelines for the Exterior Rehabilitation of Buildings in Rockville's Historic Districts, Rockville Historic District Commission, 1977.

Secretary of the Interior's Standards and Guidelines for Rehabilitation, National Park Service, 1995 www2.cr.nps.gov/tps/standguide/rehab/ rehab_index.htm

NPS Preservation Briefs Series at www2.cr.nps.gov/tps/briefs/presbhom.htm

- No. 3 Conserving Energy in Historic Buildings
- No. 9 The Repair of Historic Wooden Windows
- No. 10 Exterior Paint Problems on Historic Woodwork
- No. 16 The Use of Substitute Materials on Historic Building Exteriors